

ELECTRONICS IN SOVIET HEALTH RESORTS

N. Konakh

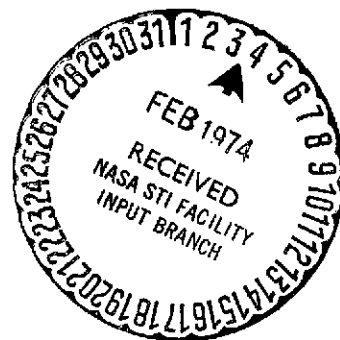
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16. Abstract The rise in use of computer technology and biotele- metric apparatus is reported in various health resorts, especially in Kislovodsk, where a Biotelemetry Laboratory was created several years ago. An example is given of the biotelemetric system in use in which a doctor records the electrocardiogram of a patient who may be 4-5 km away and at the same time advises him on his walking pace. The pace is set by an "electronic pacers" also developed in this laboratory. "Biosensors" are used by the doctor to monitor the patient's condition during almost any activity. Com- puter technology is also used to analyze diagnostic data and store patient's medical histories. Recently, an All-Union Practical Conference was held in Kislovodsk on the developing application of medical apparatus in health resorts. Papers were read by Prof. A. Popov from the Institute of Cybernetics (Ukrainian SSR Academy of Sciences) on the successful use of standardized case histories.			
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Several years ago a scientific research biotelemetry laboratory, one of the first at the health resorts in our country, was set up in Kislovodsk. Today the biotelemetry method has been introduced into nearly every health resort in Kislovodsk. It is being used especially extensively in the sanatoria imeni S. Ordzhonikidze, "Piket," "Moskva," "Rodina," and "Krepost'." In his office, a physician can observe the condition of a patient during his walking times along the route of the health resort grounds. By recording the patient's electrocardiogram when he is sometimes 4-5 km away, the physician can simultaneously give him advice on his walking pace and on rest. The walking pace is set with an electronic pacer, the first models of which were built in the laboratory. /4*

Improvements in research methods and the development of the metrological essentials of biotelemetry equipment made it possible for physicians, by using biosensors, to observe the condition of patients during balneological procedures, therapeutic physical culture, and athletic games. These methods are being more widely introduced into health resort practice in the Ukraine, Caucasus mineral springs, Krasnodarskiy Kray, and elsewhere.

Many of the country's health resorts use electronic computers to interpret diagnostic data, maintain standardized disease histories, and sanatorium-health resort records.

All this promotes higher quality in diagnostic and treatment at health resorts, the level of patient service, and economies in funds and work time of personnel.

* Numbers in the margin indicate pagination in the foreign text.

An All-Union scientific-practical conference held in Kislovodsk was devoted to summing up the experience in the use of electronics and computers, prospects of introducing automated systems for data collection and processing at health resort establishments, and advancement of medical instrument-building in health resort practice. Physicians, scientists, and engineering-technical personnel took part.

The vice-chairman of the Central Council on the Management of Trade Union Health Resorts, V. Poltranov, presented the main report. On noting the advances, he dwelt in detail in the shortcomings in introducing modern technical facilities for mechanization and automation in hydropathic establishments, and data processing in sanatoria and health resorts. The directors of territorial councils on health resort management and chief physicians at several sanatoria have in several instances undervalued the importance of modern technical facilities for data collection and processing, and are introducing automation and electronic computers at a slow rate.

The Institute of Cybernetics of the Ukrainian SSR Academy of Sciences and the Leningrad Institute of Aviation Instrument-Building are providing much assistance to the country's health resorts in introducing electronics and computers and in the scientific supervision of experimental work. Naturally, representatives of these institutes also participated in the conference. Professor A. Popov (Ukraine) reported on successful experience in employing standardized disease histories.

Many papers dealt with biotelemetry at health resorts. Professor V. Makoylov (Leningrad) reported on the prospects for advances in this method of research. The series production of general-purpose biotelemetry systems is planned for in 1975.

Conference participants heard more than 30 papers on biotelemetry in health resorts of Kislovodsk, the Urals, and Leningrad, the use of electronic computers at the health resorts of Sochi, Riga, and Pyatigorsk, automated processing of medical data in sanatoria of the Crimea, and on other subjects. Recommendation on further, broader use of electronics and computers were adopted.